

Part 1 Reflection- Engaging in the garden project fundamentally transformed my understanding of sustainability within early childhood education. Initially, I viewed sustainability primarily as a series of environmental activities that could be planned for children. However, through sustained observation, reflection and engagement with contemporary literature, I came to recognise that sustainability is not simply something educators teach, but an ethical and relational way of thinking that shapes how we understand children, nature and our role as practitioners. This project challenged many of my existing assumptions and encouraged me to reconsider how meaningful sustainability education can be embedded within everyday practice.

Elliott and Arlemalm-Hagser (2020) argue that meaningful sustainability practice begins with educators developing their own relationship with the natural world before attempting to foster this connection in children. Reflecting on the project, I recognise that my own ecological awareness developed alongside the children's. At the beginning of the project, my focus centred on what the children would learn from creating the garden. However, as the project progressed, I realised that I was also learning, questioning and developing my own understanding of sustainability. This challenged my previous assumption that sustainability was primarily about teaching environmental knowledge and instead helped me understand it as an ongoing process of learning, reflection and relationship-building.

This shift in perspective became particularly evident when I first observed the small piece of land we had been gifted. Hadland (2020) suggests that educators develop stronger sustainability pedagogy when they intentionally slow down and observe the natural world. Initially, I expected to see an empty area that required development. Instead, I discovered a thriving ecosystem of spiders, worms, woodlice, snails, slugs and birds already occupying the space. This moment fundamentally changed my thinking. Rather than viewing sustainability as something I could create through planned activities, I began to understand that meaningful learning already existed within the environment. My role was not to control nature but to help children notice, appreciate and develop relationships with it. Reflecting on this experience also highlighted how

easily educators can overlook the educational value already present within natural spaces when they focus too heavily on adult-led planning.

These observations encouraged me to think more deeply about the relationships that exist within nature rather than viewing plants, animals and people as separate elements. Williams (2017) argues that sustainability thinking is rooted in recognising the interconnectedness of ecological systems. Observing how insects, plants, soil and weather continually influenced one another enabled me to understand the garden as a living system rather than simply an outdoor learning area. This represented a significant shift in my thinking because I no longer viewed sustainability as a collection of environmental activities but as understanding relationships between living things. Reflecting on this has influenced how I intend to approach future practice by placing greater emphasis on helping children explore these connections rather than focusing solely on individual activities or outcomes.

As my own understanding developed, I also began to interpret the children's learning differently. Elliott and Davis (2018) argue that repeated, meaningful experiences within natural environments contribute to children's developing ecological identities. Watching the children investigate insects, plant vegetables and herbs, paint shadows, and create habitats for wildlife demonstrated that meaningful sustainability learning emerged through authentic experiences rather than adult-directed instruction. Initially, I believed that effective teaching required carefully planned resources and structured activities. However, this project challenged that belief by showing me that children's curiosity often developed most powerfully when they were given time, freedom and trust to explore naturally occurring phenomena. This has encouraged me to place greater value on child-led enquiry and spontaneous learning opportunities within outdoor environments.

Importantly, my understanding of sustainability also extended beyond environmental awareness to include relationships with families and the wider community. The Welsh Government (2022) highlights that sustainability education is strengthened when children, families and educators work collaboratively. This became evident during our Together Time session, where families joined children in planting vegetables from food

scraps. Reflecting on this experience helped me understand that sustainability is not solely concerned with caring for the environment but also with building relationships, sharing responsibility and strengthening communities. Observing parents and children learning together reinforced my belief that sustainability becomes more meaningful when it is experienced collectively rather than individually. Consequently, I now recognise family engagement as an essential component of effective sustainability education.

Reflecting creatively on the project further deepened my understanding of sustainability. Elliott and Arlemalm-Hagser (2020) suggest that creative reflection allows educators to explore their developing ecological identities. Writing my poem, *A Garden Built by Little Hands*, enabled me to revisit the quieter moments of the project that were perhaps less visible within photographs or written observations. The process encouraged me to reflect not only on what the children achieved but also on the emotional connections that developed between ourselves, the garden and the wider natural world. This helped me appreciate that sustainability is not only practical but also deeply emotional, relational and personal, reinforcing the importance of nurturing children's sense of belonging within nature.

Overall, this project has significantly influenced both my personal understanding of sustainability and my developing professional philosophy. Davis and Elliott (2023) argue that sustainability is most effective when it is lived rather than taught, and this idea now underpins my approach to early childhood education. Throughout the project, I learned to observe more carefully, question my own assumptions and trust the environment as a powerful teacher. Most importantly, I now understand that my role extends beyond teaching children about sustainability; it involves modelling respect, curiosity and care through my everyday interactions with children, families and the natural world. This reflective journey has fundamentally reshaped how I intend to approach sustainability in my future practice, recognising it not as an additional area of learning but as an ethical and relational approach that should underpin all aspects of early childhood education.

Part 2 critical evaluation- A critical evaluation of the garden project requires examining how effectively the practice aligns with contemporary research, theory and policy relating to early childhood education for sustainability. Rather than describing the project as successful, it is necessary to analyse the extent to which it supported children's ecological understanding, agency, enquiry skills and engagement with wider sustainability concepts. This involves identifying both the strengths of the approach and the limitations that restricted deeper pedagogical impact. Evaluating the project through established literature provides a basis for determining how well the practice reflected current expectations for sustainability education and where further development is required.

Drawing on the work of Elliott and Årlemalm-Hagser (2020), sustainability in early childhood is best understood as an ethical and relational orientation rather than a set of environmental tasks. The project reflected this shift, particularly as the educator began recognising the garden as a living ecosystem rather than an empty space. This transformation aligns with research suggesting that educators must first develop their own ecological awareness before they can meaningfully support children's learning. However, recognising sustainability as relational also requires educators to embed intentional pedagogical strategies that deepen children's conceptual understanding. This is where the project shows room for further development.

Building on Bruce's (2021) interpretation of Froebelian principles, the project successfully provided authentic experiences that allowed children to engage directly with nature. Children investigated insects, planted vegetables and cared for living things, demonstrating curiosity and responsibility. These experiences align with Froebel's belief that nature supports holistic development. Yet Froebel also emphasised the importance of sustained dialogue and reflective conversation. While the scrapbook documents rich activity, there is less evidence of adults extending children's thinking through purposeful questioning or co-construction of meaning. Without this, experiential learning risks remaining surface-level rather than supporting deeper ecological literacy.

Research by Moore (2017) highlights that children's understanding develops most effectively when adults scaffold thinking through sustained dialogue. Although the project offered many opportunities for exploration, adult-child interactions appeared more descriptive than analytical. For example, children observed insects and plants, but opportunities to explore *why* these phenomena occur were less evident. This suggests a need for more intentional pedagogical planning to ensure that children's observations lead to conceptual progression rather than remaining isolated experiences.

The project's emphasis on repeated engagement with nature strongly aligns with Elliott and Davis (2018), who argue that ecological identity develops through meaningful relationships with the environment over time. Children demonstrated pride and responsibility when watering plants, maintaining habitats and harvesting produce. These behaviours indicate emerging ecological identity. However, ecological identity is strengthened not only through participation but through agency. Malone (2013) argues that children should be positioned as active environmental citizens capable of influencing decisions. In this project, most decisions about the garden's design remained adult-led. A more democratic approach inviting children to choose planting areas, design habitats or evaluate the garden's development would enhance both agency and environmental citizenship.

Understanding ecological relationships was another strength of the project. Observations of insects, soil, weather and plant growth helped children recognise interconnectedness, echoing Williams (2017) who emphasises that sustainability thinking is rooted in understanding ecological systems. However, recognising interconnectedness requires more than observation. Cutter-Mackenzie *et al.* (2014) argue that environmental play should incorporate enquiry, prediction and scientific investigation. Opportunities for deeper enquiry—such as exploring how pollinators support plant growth or why certain insects prefer particular habitats—were limited. Strengthening enquiry-based learning would deepen children's scientific understanding while maintaining curiosity.

The social dimension of sustainability was also evident. Family involvement during Together Time demonstrated that sustainability learning extends beyond the setting. This aligns with Siraj-Blatchford *et al.* (2018), who emphasise connecting children's experiences with wider ecological and social systems. Welsh Government (2022) similarly highlights the importance of collaboration within the Curriculum for Wales. While family engagement was strong, broader community partnerships were less developed. Collaborating with local environmental organisations or community gardens would help children recognise sustainability as a shared societal responsibility.

Children's rights also form a crucial part of sustainability education. UNICEF (2019) asserts that children have the right to participate in decisions affecting their environments. The project supported this through practical involvement, yet participation was largely operational rather than democratic. Inviting children to co-construct the project—through planning, evaluating and adapting the garden—would strengthen both rights-based practice and environmental citizenship.

Perhaps the most significant outcome of the project was the educator's professional transformation. Insights from Davis and Elliott (2023) emphasise that sustainability is most effective when lived rather than taught. The educator's shift from viewing the garden as an empty space to recognising it as an ecosystem reflects this lived understanding. Elliott *et al.* (2023) further argue that educators must continually question their assumptions and engage critically with their practice. While the educator's developing ecological awareness is a strength, sustaining this approach requires ongoing critical reflection and intentional pedagogical planning to ensure sustainability becomes embedded within long-term practice.

In conclusion, the garden project demonstrated many characteristics of effective early childhood sustainability education: authentic engagement with nature, meaningful family involvement and opportunities for child-led exploration. However, contemporary literature consistently argues that meaningful sustainability learning requires intentional scaffolding, conceptual progression, democratic participation and connections to wider ecological and social systems. Strengthening these elements would deepen children's

ecological understanding, enhance agency and ensure sustainability becomes an ethical and relational approach underpinning all aspects of early childhood education. This evaluation therefore reinforces that sustainability is not an additional curriculum topic but a pedagogical commitment requiring continual reflection, collaboration and purposeful practice.